#6 1/2

RAW SEQUENCE LISTING   DATE: 04/11/2002
PATENT APPLICATION: US/09/868,300   TIME: 16:08:29

Input Set : A:\V300011.app
Output Set: N:\CRF3\04112002\I868300.raw

p.6

ENTERED

```
 3 <110> APPLICANT: De Veylder, Lieven
 4         Boudolf, Veronique
 5         Torres Acosta, Juan A.
 6         Inze, Dirk
 8 <120> TITLE OF INVENTION: NOVEL CELL CYCLE GENES AND USES THEREOF
10 <130> FILE REFERENCE: 2364/300
12 <140> CURRENT APPLICATION NUMBER: 09/868,300
13 <141> CURRENT FILING DATE: 2002-02-26
15 <150> PRIOR APPLICATION NUMBER: PCT/EP99/10084
16 <151> PRIOR FILING DATE: 1999-12-17
18 <150> PRIOR APPLICATION NUMBER: EP 98 12 4062.5
19 <151> PRIOR FILING DATE: 1998-12-17
21 <160> NUMBER OF SEQ ID NOS: 58
23 <170> SOFTWARE: PatentIn Ver. 2.1
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 1989
27 <212> TYPE: DNA
28 <213> ORGANISM: Arabidopsis thaliana
30 <220> FEATURE:
31 <221> NAME/KEY: CDS
32 <222> LOCATION: (2)..(1669)
34 <400> SEQUENCE: 1
35 a acg caa gaa atg caa gaa gaa gag gaa gaa agt tct gac cca gtt ttt 49
36   Thr Gln Glu Met Gln Glu Glu Glu Glu Glu Ser Ser Asp Pro Val Phe
37     1               5                  10                  15
39 gat aat gcc atc cag cga gcg ttg att gtt gga gat tac aag gag gcg  97
40 Asp Asn Ala Ile Gln Arg Ala Leu Ile Val Gly Asp Tyr Lys Glu Ala
41             20                  25                  30
43 gtg gat cag tgt ata act gca aat aag atg gcc gat gct tta gtt att 145
44 Val Asp Gln Cys Ile Thr Ala Asn Lys Met Ala Asp Ala Leu Val Ile
45         35                  40                  45
47 gct cat gtt ggt ggt aca gcg ttg tgg gag agt act cgt gag aaa tat 193
48 Ala His Val Gly Gly Thr Ala Leu Trp Glu Ser Thr Arg Glu Lys Tyr
49     50                  55                  60
51 ttg aag acg aac agt gcg cca tac atg aag gtt gtt tct gcg atg gtg 241
52 Leu Lys Thr Asn Ser Ala Pro Tyr Met Lys Val Val Ser Ala Met Val
53 65                  70                  75                  80
55 aac aat gat ctc agg agc ctt atc tat aca agg tca cat aag ttc tgg 289
56 Asn Asn Asp Leu Arg Ser Leu Ile Tyr Thr Arg Ser His Lys Phe Trp
57                 85                  90                  95
59 aaa gag act ctt gct ctc ctc tgt act ttt gca caa gga gaa caa tgg 337
60 Lys Glu Thr Leu Ala Leu Leu Cys Thr Phe Ala Gln Gly Glu Gln Trp
61                100                 105                 110
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/868,300

DATE: 04/11/2002
TIME: 16:08:29

Input Set : A:\V300011.app
Output Set: N:\CRF3\04112002\I868300.raw

```
 63 aca acc ctg tgt gat gcc ctt gcc tcg aag ttg atg gct gct ggt aac   385
 64 Thr Thr Leu Cys Asp Ala Leu Ala Ser Lys Leu Met Ala Ala Gly Asn
 65         115             120             125
 67 act ttg gct gca gtt ctc tgc tac att tgc gca ggc aat gtt gac aga   433
 68 Thr Leu Ala Ala Val Leu Cys Tyr Ile Cys Ala Gly Asn Val Asp Arg
 69         130             135             140
 71 aca gta gaa att tgg tcg agg agc ctt gca aat gag cgg gat gga aga   481
 72 Thr Val Glu Ile Trp Ser Arg Ser Leu Ala Asn Glu Arg Asp Gly Arg
 73 145             150             155             160
 75 tct tat gct gag ctt ctt caa gat ctt atg gag aag act ctt gtc ctt   529
 76 Ser Tyr Ala Glu Leu Leu Gln Asp Leu Met Glu Lys Thr Leu Val Leu
 77             165             170             175
 79 gct ttg gca act ggc aac aaa aag ttc agc gca tct ctg tgt aaa ctc   577
 80 Ala Leu Ala Thr Gly Asn Lys Lys Phe Ser Ala Ser Leu Cys Lys Leu
 81         180             185             190
 83 ttt gag agt tat gct gag ata ctg gcc agc caa ggg ctt ctt aca acg   625
 84 Phe Glu Ser Tyr Ala Glu Ile Leu Ala Ser Gln Gly Leu Leu Thr Thr
 85         195             200             205
 87 gca atg aag tac ttg aaa gtt ctg gat tct ggt ggc ttg tca cct gaa   673
 88 Ala Met Lys Tyr Leu Lys Val Leu Asp Ser Gly Gly Leu Ser Pro Glu
 89         210             215             220
 91 ctt tca ata tta cgt gat cgt att tct cta tct gca gaa cct gag act   721
 92 Leu Ser Ile Leu Arg Asp Arg Ile Ser Leu Ser Ala Glu Pro Glu Thr
 93 225             230             235             240
 95 aac act aca gct tca gga aac act cag cct caa agc acc atg cca tat   769
 96 Asn Thr Thr Ala Ser Gly Asn Thr Gln Pro Gln Ser Thr Met Pro Tyr
 97             245             250             255
 99 aat cag gag cca act cag gcg caa cca aac gtt ctt gct aac cca tat   817
100 Asn Gln Glu Pro Thr Gln Ala Gln Pro Asn Val Leu Ala Asn Pro Tyr
101         260             265             270
103 gat aat cag tat cag caa ccg tac act gat tct tat tat gtc cct caa   865
104 Asp Asn Gln Tyr Gln Gln Pro Tyr Thr Asp Ser Tyr Tyr Val Pro Gln
105         275             280             285
107 gtt tca cat cca ccc atg cag caa cca acc atg ttt atg cca cac caa   913
108 Val Ser His Pro Pro Met Gln Gln Pro Thr Met Phe Met Pro His Gln
109         290             295             300
111 gct cag cca gct ccg cag cca tct ttt act cca gct cct aca agc aat   961
112 Ala Gln Pro Ala Pro Gln Pro Ser Phe Thr Pro Ala Pro Thr Ser Asn
113 305             310             315             320
115 gct cag cca tcc atg aga act aca ttt gtt cct tca act ccc cct gca   1009
116 Ala Gln Pro Ser Met Arg Thr Thr Phe Val Pro Ser Thr Pro Pro Ala
117             325             330             335
119 ctg aag aat gca gat caa tat cag cag cca acc atg agt tct cat tca   1057
120 Leu Lys Asn Ala Asp Gln Tyr Gln Gln Pro Thr Met Ser Ser His Ser
121             340             345             350
123 ttc acg gga cca tct aac aat gca tac cct gtt ccc ccg ggt cct ggt   1105
124 Phe Thr Gly Pro Ser Asn Asn Ala Tyr Pro Val Pro Pro Gly Pro Gly
125         355             360             365
127 caa tat gca cct tct ggc cct tca caa ctt ggg caa tat cct aac cct   1153
```

```
128 Gln Tyr Ala Pro Ser Gly Pro Ser Gln Leu Gly Gln Tyr Pro Asn Pro
129     370             375             380
131 aag atg ccc caa gtt gtt gct cca gca gct gga ccc ata gga ttt acg   1201
132 Lys Met Pro Gln Val Val Ala Pro Ala Ala Gly Pro Ile Gly Phe Thr
133 385             390             395             400
135 ccc atg gca act cca gga gtt gct cca aga tct gtg caa cca gca agt   1249
136 Pro Met Ala Thr Pro Gly Val Ala Pro Arg Ser Val Gln Pro Ala Ser
137             405             410             415
139 cct cca aca cag cag gca gct gca cag gca gcc cct gcg cct gca act   1297
140 Pro Pro Thr Gln Gln Ala Ala Ala Gln Ala Ala Pro Ala Pro Ala Thr
141             420             425             430
143 ccg cca cca act gtt cag act gca gat act tcc aac gtt cca gcc cac   1345
144 Pro Pro Pro Thr Val Gln Thr Ala Asp Thr Ser Asn Val Pro Ala His
145             435             440             445
147 cag aaa cct gtg ata gca acg ttg aca agg ctt ttc aat gag aca tcg   1393
148 Gln Lys Pro Val Ile Ala Thr Leu Thr Arg Leu Phe Asn Glu Thr Ser
149     450             455             460
151 gaa gca ctg gga ggc gca cgt gcg aat act act aag aag cgt gag ata   1441
152 Glu Ala Leu Gly Gly Ala Arg Ala Asn Thr Thr Lys Lys Arg Glu Ile
153 465             470             475             480
155 gaa gac aac tcg aga aaa tta ggt gct ctg ttt gtg aaa ctc aac agc   1489
156 Glu Asp Asn Ser Arg Lys Leu Gly Ala Leu Phe Val Lys Leu Asn Ser
157             485             490             495
159 gga gac atc tcc aag aat gct gcg gac aaa ctc gca cag cta tgc caa   1537
160 Gly Asp Ile Ser Lys Asn Ala Ala Asp Lys Leu Ala Gln Leu Cys Gln
161             500             505             510
163 gct ctg gac aac aat gac ttc agc aca gcc ctt caa ata cag gta ctt   1585
164 Ala Leu Asp Asn Asn Asp Phe Ser Thr Ala Leu Gln Ile Gln Val Leu
165             515             520             525
167 ctg act acc agc gaa tgg gac gaa tgc aac ttc tgg ctg gca aca cta   1633
168 Leu Thr Thr Ser Glu Trp Asp Glu Cys Asn Phe Trp Leu Ala Thr Leu
169     530             535             540
171 aag cgg atg atg gtc aag gcc agg caa aat gtg cgg tgattattta          1679
172 Lys Arg Met Met Val Lys Ala Arg Gln Asn Val Arg
173 545             550             555
175 ttttctggtt catggatttt ttttttata aattttaagg agggacgtgt gtatcaaact 1739
177 ccttttgctt tcttaatttt ggttttttta aaacgccgtt gctgctctaa tttttttttt 1799
179 ttttttttt tgtcatttat gaacctcatc tgctacttcc agttactttt ttgtttagat 1859
181 agtatagaga tcatcagatt gctgaaacat tttcatgttt ttggatgtta ctttaccgga 1919
183 caagtttgtt cgtctttctt tctaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaaa 1979
185 aaaaaaaaaa                                                         1989
188 <210> SEQ ID NO: 2
189 <211> LENGTH: 556
190 <212> TYPE: PRT
191 <213> ORGANISM: Arabidopsis thaliana
193 <400> SEQUENCE: 2
194 Thr Gln Glu Met Gln Glu Glu Glu Glu Ser Ser Asp Pro Val Phe
195 1               5               10              15
197 Asp Asn Ala Ile Gln Arg Ala Leu Ile Val Gly Asp Tyr Lys Glu Ala
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/868,300

DATE: 04/11/2002
TIME: 16:08:29

Input Set : A:\V300011.app
Output Set: N:\CRF3\04112002\I868300.raw

```
198                 20                      25                      30
200 Val Asp Gln Cys Ile Thr Ala Asn Lys Met Ala Asp Ala Leu Val Ile
201             35                  40                  45
203 Ala His Val Gly Gly Thr Ala Leu Trp Glu Ser Thr Arg Glu Lys Tyr
204         50                  55                  60
206 Leu Lys Thr Asn Ser Ala Pro Tyr Met Lys Val Val Ser Ala Met Val
207 65                  70                  75                  80
209 Asn Asn Asp Leu Arg Ser Leu Ile Tyr Thr Arg Ser His Lys Phe Trp
210             85                  90                  95
212 Lys Glu Thr Leu Ala Leu Leu Cys Thr Phe Ala Gln Gly Glu Gln Trp
213             100                 105                 110
215 Thr Thr Leu Cys Asp Ala Leu Ala Ser Lys Leu Met Ala Ala Gly Asn
216             115                 120                 125
218 Thr Leu Ala Ala Val Leu Cys Tyr Ile Cys Ala Gly Asn Val Asp Arg
219     130                 135                 140
221 Thr Val Glu Ile Trp Ser Arg Ser Leu Ala Asn Glu Arg Asp Gly Arg
222 145                 150                 155                 160
224 Ser Tyr Ala Glu Leu Leu Gln Asp Leu Met Glu Lys Thr Leu Val Leu
225             165                 170                 175
227 Ala Leu Ala Thr Gly Asn Lys Lys Phe Ser Ala Ser Leu Cys Lys Leu
228             180                 185                 190
230 Phe Glu Ser Tyr Ala Glu Ile Leu Ala Ser Gln Gly Leu Leu Thr Thr
231             195                 200                 205
233 Ala Met Lys Tyr Leu Lys Val Leu Asp Ser Gly Gly Leu Ser Pro Glu
234     210                 215                 220
236 Leu Ser Ile Leu Arg Asp Arg Ile Ser Leu Ser Ala Glu Pro Glu Thr
237 225                 230                 235                 240
239 Asn Thr Thr Ala Ser Gly Asn Thr Gln Pro Gln Ser Thr Met Pro Tyr
240             245                 250                 255
242 Asn Gln Glu Pro Thr Gln Ala Gln Pro Asn Val Leu Ala Asn Pro Tyr
243             260                 265                 270
245 Asp Asn Gln Tyr Gln Gln Pro Tyr Thr Asp Ser Tyr Tyr Val Pro Gln
246         275                 280                 285
248 Val Ser His Pro Pro Met Gln Gln Pro Thr Met Phe Met Pro His Gln
249     290                 295                 300
251 Ala Gln Pro Ala Pro Gln Pro Ser Phe Thr Pro Ala Pro Thr Ser Asn
252 305                 310                 315                 320
254 Ala Gln Pro Ser Met Arg Thr Thr Phe Val Pro Ser Thr Pro Pro Ala
255             325                 330                 335
257 Leu Lys Asn Ala Asp Gln Tyr Gln Gln Pro Thr Met Ser Ser His Ser
258             340                 345                 350
260 Phe Thr Gly Pro Ser Asn Asn Ala Tyr Pro Val Pro Pro Gly Pro Gly
261         355                 360                 365
263 Gln Tyr Ala Pro Ser Gly Pro Ser Gln Leu Gly Gln Tyr Pro Asn Pro
264     370                 375                 380
266 Lys Met Pro Gln Val Val Ala Pro Ala Ala Gly Pro Ile Gly Phe Thr
267 385                 390                 395                 400
269 Pro Met Ala Thr Pro Gly Val Ala Pro Arg Ser Val Gln Pro Ala Ser
270             405                 410                 415
```

RAW SEQUENCE LISTING   DATE: 04/11/2002
PATENT APPLICATION: US/09/868,300   TIME: 16:08:29

Input Set : A:\V300011.app
Output Set: N:\CRF3\04112002\I868300.raw

```
272 Pro Pro Thr Gln Gln Ala Ala Ala Gln Ala Ala Pro Ala Pro Ala Thr
273             420         425             430
275 Pro Pro Pro Thr Val Gln Thr Ala Asp Thr Ser Asn Val Pro Ala His
276         435         440             445
278 Gln Lys Pro Val Ile Ala Thr Leu Thr Arg Leu Phe Asn Glu Thr Ser
279     450         455             460
281 Glu Ala Leu Gly Gly Ala Arg Ala Asn Thr Thr Lys Lys Arg Glu Ile
282 465             470             475                 480
284 Glu Asp Asn Ser Arg Lys Leu Gly Ala Leu Phe Val Lys Leu Asn Ser
285             485             490                 495
287 Gly Asp Ile Ser Lys Asn Ala Ala Asp Lys Leu Ala Gln Leu Cys Gln
288             500             505             510
290 Ala Leu Asp Asn Asn Asp Phe Ser Thr Ala Leu Gln Ile Gln Val Leu
291         515             520             525
293 Leu Thr Thr Ser Glu Trp Asp Glu Cys Asn Phe Trp Leu Ala Thr Leu
294     530             535             540
296 Lys Arg Met Met Val Lys Ala Arg Gln Asn Val Arg
297 545             550             555
301 <210> SEQ ID NO: 3
302 <211> LENGTH: 814
303 <212> TYPE: DNA
304 <213> ORGANISM: Arabidopsis thaliana
306 <220> FEATURE:
307 <221> NAME/KEY: CDS
308 <222> LOCATION: (3)..(665)
310 <400> SEQUENCE: 3
311 gg gac tct ctc gca acc gat cca gct ttc att gat tcg gat gta tac    47
312    Asp Ser Leu Ala Thr Asp Pro Ala Phe Ile Asp Ser Asp Val Tyr
313    1           5               10              15
315 ctc agg tta gga ctt att att gag ggc aaa cga ttg aaa aag cca ccg   95
316 Leu Arg Leu Gly Leu Ile Ile Glu Gly Lys Arg Leu Lys Lys Pro Pro
317             20              25              30
319 act gtt ctc tca cgc ctc tct tct tct ctg gag aga tct ctg tta ctc  143
320 Thr Val Leu Ser Arg Leu Ser Ser Ser Leu Glu Arg Ser Leu Leu Leu
321             35              40              45
323 aat cat gat gac aag att ctg ctt gga tcg cca gac tct gtt acc gtg  191
324 Asn His Asp Asp Lys Ile Leu Leu Gly Ser Pro Asp Ser Val Thr Val
325         50              55              60
327 ttt gac ggg aga tct ccc cct gag atc agt att gca cac tac ttg gat  239
328 Phe Asp Gly Arg Ser Pro Pro Glu Ile Ser Ile Ala His Tyr Leu Asp
329         65              70              75
331 cgc att ttc aag tac tct tgc tgc agt ccc tcc tgc ttc gtc att gcg  287
332 Arg Ile Phe Lys Tyr Ser Cys Cys Ser Pro Ser Cys Phe Val Ile Ala
333 80              85              90              95
335 cat atc tac att gat cac ttt ctc cat aag acc cga gcc ctt ctc aaa  335
336 His Ile Tyr Ile Asp His Phe Leu His Lys Thr Arg Ala Leu Leu Lys
337             100             105             110
339 ccc ctt aat gtc cac cgc ctt atc att aca act gtc atg tta gct gct  383
340 Pro Leu Asn Val His Arg Leu Ile Ile Thr Thr Val Met Leu Ala Ala
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/11/2002
PATENT APPLICATION: US/09/868,300   TIME: 16:08:30

Input Set : A:\V300011.app
Output Set: N:\CRF3\04112002\I868300.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:52; N Pos. 1,18,231,412,473,495,543,557,561,562,570
Seq#:55; N Pos. 6,9,11,733,738